

Amendment and Response

Applicant: Werner Ertle et al.

Serial No.: 10/522,502

Filed: November 11, 2005

Docket No.: I431.124.101/FIN404PCT/US

Title: SEMICONDUCTOR WAFER WITH ELECTRICALLY CONNECTED CONTACT AND TEST AREAS

REMARKS

The following remarks are made in response to the Non-Final Office Action mailed April 29, 2008. Claims 34-37 have been withdrawn from consideration. Claims 1-17 have been cancelled. Claims 18-33 and 38-40 were rejected. Claims 23, 26, 27, 33 have been objected to. With this Response, claims 23, 26, 27, and 33 have been amended and claim 41 has been added. Claims 18-33 and 38-41 remain pending in the application and are presented for reconsideration and allowance.

Drawings

The Office Action objected to the drawings because there were some reference numbers not explicitly mentioned in the description. In an effort to move the application to allowance, the drawings have been amended to remove the reference numbers listed in the Office Action. The objection to the drawings is thus believed to be overcome.

Claim Objections

The Office Action objected to claims 23, 26, 27 and 33 for various informalities.

More specifically, claim 23 was objected to for lacking a reference to the claim from which it depends. Claim 23 has been amended so that it depends from claim 20.

Claims 26, 27 and 33 were objected to for the use of the term *adapted*. These claims have been amended to remove the term *adapted*.

Applicants therefore believe all of the claim objections have been overcome.

Claim Rejections under 35 U.S.C. § 102

Claims 18-21, 23, 24, 26, 27, and 38-40 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Yoshida (US 6,445,001 B2). Applicants respectfully traverse the rejections of these claims.

First, it is well accepted that, to anticipate a claim, the cited prior art reference must disclose each claim element. Further, the disclosure in the prior art reference must be in as

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complete detail as recited in the claim. *See*, MPEP 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)).

Independent claim 18 includes

“an arrangement of contact areas and test areas which are in each case electrically conductively connected to one another, the contact areas being arranged in the passive first region, the passive first region having no components of an integrated circuit, the test areas being arranged in the active second region, the active second region having components of an integrated circuit.”

Independent claims 38 and 39 include similar elements.

The Office Action states that reference numbers 7 and 16 in the left portion of Yoshida's Figure 7 indicate contact regions in a passive region and reference numbers 7, 16 and 9 in the right portion of the drawing are test areas in an active region recited in claims 18, 38 and 39.

However, this interpretation is in complete contrast to the explicit description of these two types of contact regions in the Yoshida reference. According to Yoshida, the contact areas 101 located in the passive region are test contact areas and contact terminals 102 which include the bumps 3 are positioned in the active area. *See, e.g.*, Yoshida at column 5, lines 43 to 47. Yoshida, therefore, *teaches away* from the arrangement of the contact areas and test areas as recited in the pending claims.

As such, Yoshida fails to disclose each claim element in as complete detail as recited. Yoshida therefore cannot anticipate claims 18, 38 or 30, nor any claims dependent thereon. Applicants thus respectfully submit that claims 18-21, 23, 24, 26, 27 and 38-40 are all in form for allowance.

Claim Rejections under 35 U.S.C. § 103

Claims 28, 29, and 33 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Yoshida, and claims 22, 25, and 30-32 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Yoshida in view of Henson (US 6,133,054). Applicants respectfully traverse these rejections.

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Claims 22 and 25 both ultimately depend from claim 18, which is allowable for the reasons set forth above. Claims 22 and 25 are allowable for at least the same reasons.

Among other things, independent claim 28 includes:

“the contact areas being arranged in a passive, first region of the top side of the semiconductor chip, the passive first region having no components of an integrated circuit;
the test areas being arranged in an active, second region of the top side of the semiconductor chip, the active second region having components of an integrated circuit....”

Similar limitations were discussed above in conjunction with independent claims 18, 38 and 39. As noted above, Yoshida fails to disclose these claim limitations, and even appears to teach away from the recited arrangement. As such, claim 28, and claims 29 and 30-33 dependent thereon, are in condition for allowance.

New claim

Claim 41 has been added herein. No new matter has been introduced. Claim 41 depends from claim 18 and is therefore allowable for at least the same reasons. Further, claim 41 includes “each of the contact areas is electrically conductively connected to a respective one of the test areas by a conduction web extending between and in the same plane as the contact area and the respective test area.” This arrangement does not appear to be disclosed or suggested by Yoshida.

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CONCLUSION

In view of the above, Applicant respectfully submits that all of the pending claims are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of the claims are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Mark L. Gleason at Telephone No. (612) 767-2503, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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